



SCIENCE BYTES

JANUARY 4, 2010 VOLUME 19

This is an information exchange that is available to all teachers in the Anchorage School District. Please read and then DO it!

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NSTA Conferences 2009-2010

March 17-20, 2010 Philadelphia, PA

Science Olympiad

March 20, 2009 Teeland & Mat-Su Career and Tech HS

Alaska State Science & Engineering Fair

March 26-28, 2010 Begich Middle School

NASA Top Stars Contest Extends Deadline

2010 is the 20th anniversary of the launching of the Hubble Space Telescope, and to celebrate, the NASA Top Stars contest has extended its next deadline to Feb. 28, 2010.

U.S. formal (K-12, college) and informal educators are invited to submit their best examples of using NASA's Hubble Space Telescope for science, technology, engineering or mathematics education. Those selected as "Top Stars" will receive national recognition and awards. For more information, visit <http://topstars.strategies.org>. Questions about this opportunity should be directed to topstars@strategies.org.

from ANROE Newsletter

Workshops

Communicating Ocean Science Sessions

Anchorage: January 18- 23

Communicating Ocean Science Sessions at the Alaska Marine Science Symposium at the Captain Cook Hotel, Anchorage. Workshops include: Ocean Acidification, and Communicating Ocean Science. Register to attend by sending an email to Nora.Deans@nprb.org <<mailto:Nora.Deans@nprb.org>> . January 18, noon – 1 pm. SEANET organizational meeting and lunch. Register to attend by sending an email to msigman@alaska.edu <<mailto:msigman@alaska.edu>> . More information about SEANET at <http://oceanseanet.ning.com> <<http://oceanseanet.ning.com/>>)

An Introduction to OCEAN in Google Earth

January 21, noon – 1 pm

An Introduction to OCEAN in Google Earth by Charlotte Vick, Communications Director for Sylvia Earle's Deep Search Foundation & Content Editor for OCEAN in Google Earth. January 22, 8 am – 10 am. Telling Your Stories in OCEAN in Google Earth led by Charlotte Vick. Space is limited. Sign up by sending an email to Nora.Deans@nprb.org <<mailto:Nora.Deans@nprb.org>> . All events are free. The agenda can be downloaded at <http://www.alaskamarinescience.org/agenda.html> <<http://www.alaskamarinescience.org/agenda.html>> Register to attend the conference at <http://www.alaskaoceanscience.org> <<http://www.alaskaoceanscience.org/>> .

Nature Writing Class

Anchorage: January 21 - April 15- Nature Writing Class- From 7 to 9:30pm in the Sierra Club office downtown. Participants in this workshop-style class will explore and refine their own writing styles, with an emphasis on the personal essay form. The class will also read and discuss works by some of America's finest nature writers, past and present. The cost is \$200. To sign up or for more information, contact Sherwonit at 245-0283 or akgriz@hotmail.com. Further information about the teacher is also available at www.billsherwonit.alaskawriters.com.

Resources

A Fish is a Fish

This is an activity for all ages that are learning to identify fish. The activity helps participants learn about the general characteristics of fish; acquire, analyze, and apply information; develop and use dichotomous keys; identify fish families; and apply this knowledge toward better fishing skills. Contact Project FISH at steph143@msu.edu <<mailto:steph143@msu.edu>>

Fish Population and Harvest Management Exercise

In this exercise, the students will be in charge of their own fishing fleet. The goal of the game is to educate stu-

dents on how fragile a population of fish can be if harvested with little thought for long term use.

http://www.fws.gov/R5Crc/Salmon/workbook/fish_population_1.pdf

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PolarTREC Learning Resources

This is a collection of articles, lessons, activities, interactive media, and more for educators, students, or anyone interested in teaching or learning more about the science of the Arctic and Antarctica. Topics include Life Science, Environmental Studies, Polar Careers, and more. Visitors can also browse resources by type or use the search engine. <http://www.polartrec.com/learning-resources>

<<http://www.polartrec.com/learning-resources>>

State of the World's Birds

Outlines why birds and biodiversity are important, examining what we know about the changing state of the world's birds, why birds are declining, and what can be done to improve their status.

<http://www.birdlife.org/sowb/>

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Understanding Plate Motions

This website, from the U.S. Geological Survey, provides an introduction to the motions of tectonic plates. Descriptions and examples of each of the four types of plate boundaries are presented along with illustrations of the motions associated with each.

<http://pubs.usgs.gov/gip/dynamic/understanding.html>

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Programs

Renewable Energy in Alaska

Anchorage-January 11- Renewable Energy in Alaska is the topic for the Make it Monday forum from 11:30am to 1pm on the 2nd Floor, Dena'ina Center. What is being done in Alaska to generate alternative energy sources?

Presentation on what projects are currently in operation to alleviate natural gas reliance in Alaska, and details on the future of renewable energy development. Pre-paid reservations are highly recommended and are required to guarantee food availability and space. Cost: \$21 for members, \$25 for non-members. Registration:

https://wews.weblinkconnect.com/WC_eCommerce/EventReg/Event_Registration.aspx?EventID=765F5X&lk=BX5G5M9U8E1R7D9U562N265E6A.

What Does a Warmer Climate Mean for Alaska's Wildlife?

Anchorage: January 13- What Does a Warmer Climate Mean for Alaska's Wildlife? From 7 to 8-m in the Alaska Zoo's Gateway Education Building. Dr. Juday will discuss new scientific findings about what the future may hold for Alaska's wild lands and the wildlife that depend

on them. For more information, contact 346-2133 or

www.alaskazoo.org.

Grants

Disney Friends for Change Grants

Application deadline January 29

Disney's Friends for Change Grants will fund kids' projects that help the environment and will engage children ages 5-18 as leaders in their communities. Grants are open to schools, organizations, and individuals planning service projects which inspire children to work with their families, friends, schools and communities to address critical needs in their local, national, and global communities.

<http://www.ysa.org/grants/announcements/friendsforchange>

<<http://www.ysa.org/grants/announcements/friendsforchange>>

Celebrate Urban Birds Mini-Grants

Application deadline February 15

The Cornell Lab of Ornithology offers mini-grants to support the organization of community Celebrate Urban Birds events.

<http://www.birds.cornell.edu/celebration/community/mini-grants/mini-grants-2010/2010-mini-grants-1>

<<http://www.birds.cornell.edu/celebration/community/mini-grants/mini-grants-2010/2010-mini-grants-1>>

Alaska CoastWalk Marine Debris Removal and Prevention Challenge Grants

Application deadline February 26

Challenge Grants will be available for the purpose of organizing a CoastWalk beach clean-up event, implementing a clean-up of an existing accumulation of marine debris in coastal Alaska, or developing and implementing a marine debris prevention program. Eligible applicants would include: non-profit organizations, municipalities, Chambers of Commerce, tribal governments, schools, and other types of community organizations that can demonstrate fiscal responsibility for administering grant funds.

Applicants may apply up to \$2,000 with a \$1 non-federal:\$2 federal match requirement (e.g. \$1000 match is needed for a \$2,000 grant). Match can be non-federal grants, cash, or in-kind services (volunteer time is valued at \$18/hr). Application can be downloaded from

www.akcoastalstudies.org

<<http://www.akcoastalstudies.org/>> .

Student Opportunities

Young Naturalist Awards Competition

Application deadline March 1

An inquiry-based research competition, inviting students in grades 7-12 to conduct research in the natural world. Students investigate questions they have in the areas of ecology, biology, Earth science, and astronomy and present their findings in an essay.

<http://www.amnh.org/nationalcenter/youngnaturalistawards/>
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Forever State-Fish Art Project

Application deadline- March 31

The Project has two primary components: Fish ON! Lesson plans for students in grades 4-12, and a national art contest in which students paint or draw their official state-fish in its natural habitat.

Each artist also writes an essay describing the fish's habitat, physical characteristics, and behavior. For more information about the Wildlife Forever State-Fish Art Project and more detailed contest

information, visit www.statefishart

<<http://www.statefishart>>

Smithsonian Studies abroad for High School Students

Smithsonian's NEW summer sessions offer High School students, who have completed grade 9 or higher, an extraordinary opportunity to travel and learn in Italy, Spain or China! Students will participate in an enriching three week program that combines intensive language instruction with cultural studies and visits to top sites in the company of experts.

In Florence, Italy study the language and rich artistic history while experiencing Tuscany's lively and inviting culture. In Avila, Spain delve into the region's multi-cultural legacy, improve Spanish language skills through daily instruction, and visit picturesque towns and villages. In Beijing, China gain a foundation in Chinese language, learn about China's emergence as a global power, tour the Great Wall and visit Xi'an. All programs include comfortable, supervised housing, most meals, a robust curriculum, and the opportunity to explore local culture in depth.

Smithsonian Journeys is working with CET Academic Programs, a private study abroad organization based in Washington, DC that has administered overseas programs for students since 1982. Smithsonian's 40 years in travel combined with CET's nearly 27 years in overseas student programming, ensures high academic standards, innovative approaches, and careful student management in a safe and stimulating environment.

http://www.smithsonianjourneys.org/studies_abroad/

Amazing Images from the Herschel Space Telescope

<http://news.bbc.co.uk/2/hi/science/nature/8416263.stm>
<<http://news.bbc.co.uk/2/hi/science/nature/8416263.stm>>

Society for Science & the Public Fellows Program

The Society for Science & the Public (SSP) Fellows Program provides funds and training to selected U.S. science and math teachers who serve under-resourced students to enable interested and motivated students to perform high-quality independent scientific re-

search. Competitively selected from a large entrant pool of high school science and math teachers from 36 states and American Samoa, each Fellow will receive funding directly for their classroom and community, full support to attend the Fellows Institute in Washington, D.C. and ongoing training and resources from SSP. Successful participants can retain their Fellowship for up to four years to ensure that promising students can pursue independent research through their high school years. The deadline to apply is January 15, 2010 at 5:00 p.m. eastern standard time. For more information or to learn how to apply, visit the [Society for Science & the Public's website](#).

Project Dragonfly

Miami University's Project Dragonfly is accepting applications now for its 2010 graduate field courses and master's programs offering international field and conservation studies in Africa, Asia and the Americas. Each accepted applicant is awarded a tuition scholarship covering 2010 field course tuition, equivalent to \$3,100 in-state and \$7,100 out-of-state. The deadline to apply is Thursday, January 28, 2010.

Created by Dragonfly and the Cincinnati Zoo & Botanical Garden, Earth Expeditions graduate courses and the Global Field Program (GFP) Master's degree bring together graduate students, scientists, educators and community leaders at critical conservation field sites in Belize, Costa Rica, Baja, Trinidad, Mongolia, Thailand, Kenya and Namibia.

Earth Expeditions courses and the GFP Master's may be completed part-time from anywhere in the U.S. or abroad and are open to educators and other professionals from all settings and disciplines, regardless of academic focus. For information and to apply, visit these websites: [Earth Expeditions](#) and [Global Field Program](#).

PolarTREC: Live Events from Antarctica -- 6, 7, and 11 January 2010 -- Register Today!

Dear Polar Enthusiasts,

We have several real-time, interactive events with teachers and research teams in Antarctica this week and early next. These will be the last events that PolarTREC will be hosting from Antarctica as the season is wrapping up.

Here's the information about the three events scheduled:

Wednesday, 6 January 2010 w/ Sarah Diers and the DOM Team: Live event from McMurdo Station, Antarctica, starting at 9AM Alaska Standard Time [10AM PST, 11AM MST, 12PM CST, 1PM EST].

Thursday, 7 January 2010 w/ Gary Wesche and the CRE-SIS Team: Live event from Byrd Camp, Antarctica. Event starts at 10AM Alaska Standard Time [11AM PST, 12PM MST, 1PM CST, 2PM EST].

Monday, 11 January 2010 w/ Heidi Roop: Live event from WAIS Divide, Antarctica, starting at 9AM Alaska Standard Time [10AM PST, 11AM MST, 12PM CST, 1PM EST].

Register for events here:

<http://www.polartrec.com/live-from-ipy/registration>

Nature Clubs for Families

Spending time outdoors improves the physical and mental well-being of children and adults alike. The Children & Nature Network has developed a toolkit specifically for families interested in spending more time outdoors and starting a local Nature Club. It includes a Quick Start Guide with simple instructions on how to start a Nature Club, as well as activity ideas, tips and checklists for getting started. The kit is [available online](#) (PDF) in both English and Spanish.
